



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,015	12/11/2001	Eric Anderson	10016145	2067

7590 07/18/2006

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

SHIN, KYUNG H

ART UNIT	PAPER NUMBER
----------	--------------

2143

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/015,015	<b>Applicant(s)</b> ANDERSON, ERIC	
	<b>Examiner</b> Kyung H. Shin	<b>Art Unit</b> 2143	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is responding to application papers filed 4/18/2006.
2. Claims **1 - 37** are pending. Independent claims are **1, 22 and 32**.

### ***Response to Arguments***

3. Applicant's arguments filed 4/18/2006 have been fully considered but they are not persuasive.

- 3.1 The examiner has considered the applicant's remarks concerning the content management and delivery system of the applicant's invention.

After an additional analysis of the applicant's invention, remarks, and an additional search of the available prior art, it was determined that the current set of prior art consisting of Sequeira (6,620,205), Carpentier (6,976,165), Liu (6,839,680), Marconcini (6,834,110), and Grove (6,820,133) discloses the applicant's invention including disclosures in Remarks dated May 3, 2006.

The applicant's statements that the referenced prior art does not teach the claim limitation does not change the fact that the referenced prior art does disclose all claim limitations. In addition, the three basic criteria for obviousness has been met, therefore, the case for obviousness has been made.

All referenced prior art are content delivery and content manipulation systems operating within a web based network environment. The specifics of

each prior art may differ, but all of the referenced prior art operates within the same type of environment utilizing the same type of data.

(1) Sequeira (6,620,205): (see col. 2, lines 49-52; col. 2, line 64 - col. 3, line 3: content delivery system, web based environment);

(2) Carpentier (6,976,165): (see col. 6, lines 4-8; col. 13, lines 29-33: content delivery system, web based environment);

(3) Liu (6,839,680): (see col. 2, lines 22-26: content delivery system, web based environment);

(4) Marconcini (6,834,110): (see col. 9, lines 30-34; col. 9, lines 38-41; col. 10, lines 20-23: content delivery system, web based environment);

(5) Grove (6,820,133): (see col. 5, lines 5-7; col. 5, lines 11-15: content delivery system, web based environment).

Internet content manipulation and management system utilizing a request and response mechanism is a somewhat (i.e. depending upon the individual) broad category, but it's the category your invention is within.

The referenced prior art discloses the display of content utilizing internet technology. Internet (i.e. HTTP) technology utilizes a server that delimits and formats the different types of contents of a web page before transmission to client (i.e. browser). The client follows pre-setup (i.e. HTML delimiting) commands and procedures to parse and format the content for a web page at the server (i.e. source) before transmission and display by a browser.

3.2 Applicant argues that the referenced prior art does not disclose “ ...

*associating an identifier with a selected one of the one or more portions of content ... where the identifier is computed from the selected one of the one or more portions of content ... ” (see Remarks Page 9, Lines 11-13) ; “ ... an identifier that is computed from a portion of content ... ” (see Remarks Page 9, Line 18) ; “ ... associating an identifier with a selected one of the one or more portions of the content where the identifier is computed from the selected one of the one or more portions of the content ... ” (see Remarks Page 8, Lines 9-10)*

Sequeira (6,620,205) prior art discloses a content delivery system for the delivery of web based content within a network environment. (see Sequeira col. 2, lines 49-52; col. 2, line 64 - col. 3, line 3) Sequeira and Carpentier (6,976,165) prior art combination discloses the capability to generate (i.e. compute) an identifier from a particular portion of content within a web based environment. (see Carpentier col. 7, lines 28-33: identifier generated (i.e. computed) from content)

3.3 Applicant argues that the referenced prior art does not disclose “ ... *looking up*

*the identifier at the destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source ... ” (see Remarks Page 8, Lines 12-15) ; (see Remarks Page 8, Lines 21-23) ; “ ... using the computed identifier for looking up such an identifier at a destination and, if the identifier is found, retrieving the associated portion of content at the destination*

*and, if the identifier is not ... “ (see Remarks Page x, Lines x)*

The examiner asserts the html web page for content delivery is as analogous to the applicant's invention disclosures in its claim limitations. Sequeira and Liu combination discloses a capability to lookup information (i.e. an identifier) utilizing a cache type technology. (see Liu col. 54, lines 15-23: cache techniques for data management, cache subsystem associates document (content) with categorization (identifiers))

By definition, a cache is a storage medium (i.e. disk or memory) utilized for rapid retrieval of information. The cache utilizes identification information to identify current information within the cache. If the identification information indicates the requested information is in the cache (i.e. identifier is found), then the requested information is retrieved from the cache (i.e. destination). If the identification information indicates the requested information is not in the cache (i.e. identifier is not found), then the requested information is retrieved from the server (i.e. information source). A cache is a pool of entries. Each entry has a datum, which is a copy of the datum in some backing store. Each entry also has **a tag, which specifies the identity** of the datum in the backing store of which the entry is a copy.

When the cache client (a CPU, web browser, operating system) wishes to access a datum presumably in the backing store, it first checks the cache. If an **entry can be found with a tag matching that of the desired datum**, the datum

in the entry is used instead. This situation is known as a **cache hit**. So, for example, a web browser program might check its local cache on disk to see if it has a local copy of the contents of a web page at a particular URL. In this example, the URL is the tag, and the contents of the web page is the datum. The percentage of accesses that result in cache hits is known as the hit rate of the cache.

The alternative situation, when the cache is consulted and **found not to contain the desired datum**, is known as a **cache miss**. The datum **fetched from the backing store** during miss handling is usually inserted into the cache, ready for the next access. If the cache has limited storage, it may have to eject some other entry in order to make room. The heuristic used to select the entry to eject is known as the replacement policy. One popular replacement policy, **LRU**, replaces the least recently used entry.

**Reference URL:** <http://www.answers.com/topic/cache>

Cache technology discloses a lookup mechanism analogous to the claim limitation of the retrieval of information.

- 3.4 The Office Actions clearly delineate the set of referenced prior art that are utilized to reject each claim limitations. Sequeira discloses a content delivery system utilizing enhanced data. Sequeira and Carpentier discloses the generation of an identifier based on portions of content. Sequeira and Liu discloses cache technology which is analogous to the lookup function for information (i.e. an identifier).

3.5 Applicant argues that the referenced prior art does not disclose “ ... *which both narrow the scope of the particular claims and compel a broader interpretation of the respective base claim from which they depend ...* ” (see Remarks Page 18, Lines 2-3) ; (Remarks Page 18, Lines 13-14)

Applicant's direction for the following statement is unclear. 35 USC 112 2<sup>nd</sup> Paragraph states that “ ... *a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed ...* “. A dependent claim further limits an independent claims. It is unclear what “compel a broader interpretation of the respective base claim from which they depend ... “. Please indicate the basis for this statement.

3.6 Applicant argues that a secondary reference and a primary reference combination is not allowed due to an obviousness rejection and lack of motivation under 35 U.S.C. § 103 for the combination of the referenced prior art. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Furthermore, in response to applicant's arguments against the reference individually, one cannot show nonobviousness by attacking references individually where rejections are based on combinations of references. See *In re*



*Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### **Claim Rejection - 35 USC § 103**

4. **Claims 1 - 5, 8 - 22, 26 - 31, 36, 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sequeira** (US Patent No. 6,620,205) in view of **Carpentier et al.** (US Patent No. 6,976,165) and further in view of **Liu et al.** (US Patent No. 6,839,680).

**Regarding Claim 1**, Sequeira discloses a method for content delivery, comprising:

- a) requesting a piece of content; (see Sequeira col. 4, lines 33-36: user requests content from a web server)
- b) delimiting the piece of content into one or more portions at a source; (see Sequeira col. 7, lines 21-27: content is divided (delimited) into partitions (portions))
- d) sending the identifier to a destination; (see Sequeira col. 6, lines 40-45: identifier transmitted to destination)

Sequeira discloses associating an identifier with a selected one of the one or more portions of the content; (see Sequeira col. 8, lines 3-6: identifier attached to each partition (portion)) Sequeira does not specifically disclose an identifier

Art Unit: 2143

computed from a particular portion of content or utilization of cache techniques to manage data.

However, Carpentier discloses:

- c) wherein said identifier computed from the selected one of the one or more portions of the content; (see Carpentier col. 6, lines 4-8: digital data ; col. 7, lines 28-33: identifier generated (i.e. computed) from content)

And, Liu discloses:

- e) looking up the identifier at the destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source. (see Liu col. 54, lines 15-23: cache techniques for data management, cache subsystem associates document (content) with categorization (identifiers))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to enable an identifier to be generated (i.e. computed) from content as taught by Carpentier, and to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Carpentier in order to enable efficient security for digital information and the assurance that a file can be uniquely identified and kept secure (see Carpentier col. 3, lines 30-38: "*... provide efficient and near foolproof security for digital information and/or its respective unique identifiers ... provide a user with the assurance that not only can a file be uniquely identified, but also that the file can be kept secure from prying eyes and its integrity can be guaranteed ...*"), and to employ Liu in order to improve content

Art Unit: 2143

distribution by creating robust, accurate and maintainable performance techniques for content distribution utilizing network communications (see Liu col. 3, lines 29-31: "*... automatically categorize the documents ... categorization technique should be robust, accurate and maintainable ...*").

**Regarding Claim 2**, Sequeira discloses the method according to claim 1, wherein if the identifier is not found, the method further comprises storing the identifier and the associated portion of content at the destination. (see Sequeira col. 6, lines 40-45: identifier and content transmitted and stored at destination)

**Regarding Claim 3**, Sequeira discloses wherein storing the identifier and the associated portion of the content at the destination. (see Sequeira col. 6, lines 40-45: identifier and content transmitted to destination) Sequeira does not specifically disclose a look-up table at destination. However, Liu discloses the method according to claim 1, wherein further comprising a look-up table at the destination. (see Liu col. 54, lines 15-23: look-up table for content management utilizing cache techniques)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

Art Unit: 2143

**Regarding Claim 4**, Sequeira does not disclose the method according to claim 3, wherein the look-up table memory comprises a content addressable memory (CAM). (see Liu col. 54, lines 2-11: cache subsystem associates document (content) with categorization (identifiers))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust and accurate performance techniques for content distribution in a network. (see Liu col. 3, lines 29-31)

**Regarding Claim 5**, Sequeira discloses the method according to claim 1, further comprising computing the identifier from data contents of the associated portion of content. (see Sequeira col. 7, lines 31-39; col. 8, lines 3-6: content information generated based on HTML data)

**Regarding Claim 8**, Sequeira discloses a content delivery system wherein the source sends the identifier. (see Sequeira col. 6, lines 40-45: identifier sent to destination) And, Liu discloses the method according to claim 1, waits for an indication from the destination before sending the associated portion of content. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu.

Art Unit: 2143

One of ordinary skill in the art would be motivated to employ Liu in order to utilize robust and accurate performance techniques for content distribution in a network. (see Liu col. 3, lines 29-31)

**Regarding Claim 9**, Sequeira discloses wherein the source sends identifier and associated portion of content. (see Sequeira col. 6, lines 40-45: identifier and content distributed to destination) Sequeira does not specifically disclose that if information is located in cache then do not send information from database. However, Liu discloses the method according to claim 1, wherein if the identifier is found at the destination, the destination interrupts sending of the associated portion of content. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to utilize robust and accurate performance techniques for content distribution in a network. (see Liu col. 3, lines 29-31)

**Regarding Claim 10**, Sequeira discloses the method according to claim 1, wherein the piece of content is a web page. (see Sequeira col. 9, lines 36-38: content partitioned for a web page)

**Regarding Claim 11**, Sequeira discloses the method according to claim 1, wherein the

Art Unit: 2143

piece of content includes dynamic and static content. (see Sequeira col. 6, lines 57-62: content partition (portion) categorized as static or dynamic)

**Regarding Claim 12**, Sequeira discloses the method according to claim 11, wherein said one or more portions include at least one portion consisting of static content. (see Sequeira col. 6, lines 57-62: content partition (portion) categorized as static)

**Regarding Claim 13**, Sequeira discloses the method according to claim 12, wherein said one or more portions include at least one portion containing mixed or dynamic content. (see Sequeira col. 6, lines 57-62: content partition (portion) categorized as static and dynamic content partitions (portions))

**Regarding Claim 14**, Sequeira discloses the method according to claim 13, further comprising assigning a respective identifier to each portion consisting of static content. (see Sequeira col. 8, lines 3-6: identifiers assigned to partitions (portions)) Sequeira does not specifically disclose an identifier computed from the assigned content portion. However, Carpentier discloses wherein said respective identifier computed from the assigned portion. (see Carpentier col. 6, lines 4-8: digital data ; col. 7, lines 28-33: identifier generated (i.e. computed) from content)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to enable an identifier to be generated (i.e. computed) from content as taught by Carpentier. One of ordinary skill in the art would

Art Unit: 2143

be motivated to employ Carpentier in order to enable efficient security for digital information and the assurance that a file can be uniquely identified and kept secure (see Carpentier col. 3, lines 30-38)

**Regarding Claim 15**, Sequeira discloses the method according to claim 1, wherein said one or more portions are of fixed size. (see Sequeira col. 9, lines 38-41: partitions (portions) sized (fixed size) to be completely displayed on monitor)

**Regarding Claim 16**, Sequeira discloses the method according to claim 1, wherein said one or more portions are of variable size. (see Sequeira col. 9, lines 38-41)

**Regarding Claim 17**, Sequeira discloses the method according to claim 1, wherein said delimiting is performed by comparing the piece of content to another piece of content and determining which portions are common to both. (see Sequeira col. 7, lines 31-39: web page partitioned (portions) based on HTML data contents)

**Regarding Claim 18**, Sequeira discloses the method according to claim 1, wherein said delimiting is performed based on features contained within the piece of content. (see Sequeira col. 7, lines 31-39: content partitioning (delimited) based on content features (animated graphics or dynamic))

**Regarding Claim 19**, Sequeira discloses the method according to claim 18, said

Art Unit: 2143

features including white or blank space to be displayed. (see Sequeira col. 7, lines 31-39: content partitioned based on content features)

**Regarding Claim 20**, Sequeira discloses at least one portion received from source (see Sequeira col. 6, lines 40-45: partition (portion) retrieved from server (source)) Sequeira does not specifically disclose one portion retrieved from destination. However, Liu discloses the method according to claim 1, further comprising assembling the piece of content at the destination from at least one portion retrieved at the destination. (see Liu col. 54, lines 15-23: cache techniques, search and retrieve content information from cache)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to utilize robust and accurate performance techniques for content distribution in a network. (see Liu col. 3, lines 29-31)

**Regarding Claim 21**, Sequeira discloses the method according to claim 1, said sending being via a wide area network. (see Sequeira col. 4, lines 20-26: Internet content indicates interconnected network of LANs and WANs (wide area network) in a internetwork)

**Regarding Claim 22**, Sequeira discloses an apparatus for delivery of content data



Art Unit: 2143

comprising:

Sequeira discloses wherein a source having a plurality of stored pieces of content, the source for receiving requests for content, delimiting the pieces of content into portions and assigning said identifiers to the portions of content; (see Sequeira col. 7, lines 21-27; col. 8, lines 3-6: content partitioned (portions) with identifiers)

And, Sequeira discloses a destination coupled to the source via a network (see Sequeira col. 4, lines 20-26: network connected server (source)), the destination for providing the requests for content (see Sequeira col. 4, lines 33-36: server receives requests for content), receiving the identifiers from the source in response to the requests (see Sequeira col. 6, lines 40-45: identifiers sent from source to destination) Sequeira does not specifically disclose a look-up table.

However, Carpentier discloses:

- a) wherein, computing identifiers from said portions of content, and assigning said identifiers to the portions of content from which said identifiers are computed (see Carpentier col. 6, lines 4-8: digital data ; col. 7, lines 28-33: identifier generated (i.e. computed) from content)

And, Liu discloses:

- b) wherein looking up the identifiers in a look-up table at the destination, and wherein when an identifier is found in the table, the destination retrieves an associated portion of content from the table and when the identifier is not found in the table, the destination receives the associated portion of content from the

source via the network. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to enable an identifier to be computed (i.e. generated) from content as taught by Carpentier, and to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Carpentier in order to enable efficient security for digital information and the assurance that a file can be uniquely identified and kept secure (see Carpentier col. 3, lines 30-38), and to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications (see Liu col. 3, lines 29-31).

**Regarding Claim 26**, Sequeira discloses the destination receives the associated portion of content from the source. (see Sequeira col. 6, lines 40-45: content retrieved from source) Sequeira does not specifically disclose determining whether content is within cache. However, Liu discloses the apparatus according to claim 22 wherein the destination stores the identifier and the associated portion of content in the table. (see Liu col. 54, lines 15-23: cache techniques utilized, identifier is stored in a cache table for data management)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create

robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 27**, Sequeira discloses the method wherein the source sends the identifier. (see Sequeira col. 6, lines 40-45: identifier sent to destination) Sequeira does not specifically disclose determining whether content is within cache. However, Liu discloses the method according to claim 22, wherein the source waits for an indication from the destination before sending the associated portion of content. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 28** Sequeira discloses wherein the source sends the identifier and the associated portion of content. (see Sequeira col. 6, lines 40-45: identifier and content sent to destination) Sequeira does not specifically disclose determining whether content is within cache. However, Liu discloses the method according to claim 22, if the identifier is found at the destination, the destination interrupts sending of the associated portion of content. (see Liu col. 54, lines 15-23: cache techniques, whether

content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 29**, Sequeira discloses the method according to claim 22, wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content. (see Sequeira col. 6, lines 57-62: content partitioned (portions) into static and dynamic content)

**Regarding Claim 30**, Sequeira discloses the apparatus according to claim 29, wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content by comparing pieces of content to each other and determining which portions are common. (see Sequeira col. 6, lines 57-62: content partitioned (portions) into static and dynamic content)

**Regarding Claim 31**, Sequeira discloses the method according to claim 29, wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content based on features contained within the piece of content. (see Sequeira col. 6, lines 57-62: content partitioned (portions) into

static and dynamic content based on features)

**Regarding Claim 36**, Carpentier discloses the method according to claim 32 further comprising: computing said identifier from said selected one of the one or more portions of the content. (see Carpentier col. 7, lines 28-33: identifier generated (i.e. computed) from content)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to enable an identifier to be generated (i.e. computed) from content as taught by Carpentier. One of ordinary skill in the art would be motivated to employ Carpentier in order to enable efficient security for digital information and the assurance that a file can be uniquely identified and kept secure (see Carpentier col. 3, lines 30-38)

**Regarding Claim 37**, Carpentier discloses the method according to claim 36 wherein said computing comprises computing at least one selected from the group consisting of: a checksum, hash, or other value that is determinative of said selected one of the one or more portions of the content. (see Carpentier col. 7, lines 28-33: identifier generated (i.e. computed) from content)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to enable an identifier to be generated (i.e. computed) from content as taught by Carpentier. One of ordinary skill in the art would be motivated to employ Carpentier in order to enable efficient security for digital

Art Unit: 2143

information and the assurance that a file can be uniquely identified and kept secure (see Carpentier col. 3, lines 30-38)

5. **Claims 6, 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sequeira-Carpentier-Liu** and further in view of **Marconcini et al.** (US Patent No. 6,834,110).

**Regarding Claim 6**, Sequeira discloses usage of hash algorithm to generate hash values. (see Sequeira col. 11, lines 40-43: hash techniques utilized) Sequeira does not specifically disclose the usage of MD-5 algorithm in hash generation. However, Marconcini discloses the method according to claim 5, wherein the identifier is a MD-5 hash value. (see Marconcini col. 17, lines 1-4; col. 17, lines 10-12: MD-5 hash generation)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to generate a hash value utilizing the MD-5 hash algorithm as taught by Marconcini. One of ordinary skill in the art would be motivated to employ Marconcini in order to optimize secure delivery of content over communications network. (see Marconcini col. 1, lines 12-18;: "*... a system and related tools for the secure delivery and rights management of digital assets, such as print media, films, games, and music over global communications networks such as the Internet ... cable or satellite digital broadcast networks ...*" ; col. 1, 55-57: "*... a secure, global distribution system for digital content that protects the rights of content owners*

...")

**Regarding Claim 7**, Sequeira discloses usage of hash algorithm to generate hash values. (see Sequeira col. 11, lines 40-43: hash techniques utilized) Sequeira does not specifically disclose the usage of SHA-1 algorithm to generate a hash value. However, Marconcini discloses the method according to claim 6, wherein the identifier is a SHA-1 hash value. (see Marconcini col. 17, lines 1-4; col. 17, lines 10-12: SHA-1 hash generation)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to generate a hash value utilizing the MD-5 hash algorithm as taught by Marconcini. One of ordinary skill in the art would be motivated to employ Marconcini in order to optimize secure delivery of content over communications network. (see Marconcini col. 1, lines 12-18; col. 1, 55-57)

6. **Claims 23 - 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sequeira-Carpentier-Liu** and further in view of **Grove et al.** (US Patent No. 6,820,133).

**Regarding Claim 23**, Sequeira discloses a server for storing the pieces of content and delimiting portions of the pieces of content. (see Sequeira col. 9, lines 16-22: identifier and content stored in table) Sequeira does not specifically disclose a far proxy server. However, Grove discloses the apparatus according to claim 22, wherein the source is a

Art Unit: 2143

far proxy. (see Grove col. 5, lines 57-62; col. 12, lines 51-54: proxy server located at a "not close" (far) location)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize a proxy server located near the server (source) system as taught by Grove. One of ordinary skill in the art would be motivated to employ Grove in order to optimize and improve communications performance over a communications network. (see Grove col. 4, lines 57-62: "*... improving the performance of Internet communication, particularly communication between web clients and web servers ...*")

**Regarding Claim 24**, Sequeira discloses the apparatus according to claim 23, wherein the server comprises a web server. (see Sequeira col. 4, lines 20-26: web server utilized for content management)

**Regarding Claim 25**, Sequeira discloses the destination comprising a recipient of content and for looking up identifiers received from the source in the table (see Sequeira col. 9, lines 16-22: identifier and content stored in table) Sequeira does not specifically disclose a near proxy server. However, Grove discloses the apparatus according to claim 22, wherein the source is a near proxy. (see Grove col. 5, lines 57-62; col. 12, lines 51-54: proxy server located at a "close" (near) location)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize a proxy server located near the server



Art Unit: 2143

(source) system as taught by Grove. One of ordinary skill in the art would be motivated to employ Grove in order to optimize and improve communications performance over a communications network. (see Grove col. 4, lines 57-62)

7. **Claims 32 - 35** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sequeira** (US Patent No. 6,620,205) in view of **Liu et al.** (US Patent No. 6,839,680).

**Regarding Claim 32**, Sequeira discloses a method for content delivery, comprising:

- a) requesting a piece of content; (see Sequeira col. 4, lines 33-36: user requests content from a web server)
- b) delimiting the piece of content into one or more portions at a source; (see Sequeira col. 7, lines 21-27: content is divided (delimited) into partitions (portions))
- c) associating an identifier with a selected one of the one or more portions of the content; (see Sequeira col. 8, lines 3-6: identifier attached to each partition (portion))

Sequeira does not specifically disclose utilization of cache techniques to manage data. However, Liu discloses:

- e) determining whether to send the selected one or more portions of content of the identifier to the destination based on information at the source which is analogous to looking up the identifier at the destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the

Art Unit: 2143

identifier is not found, receiving the associated portion of content from the source. (see Liu col. 54, lines 15-23: cache techniques for data management, cache subsystem associates document (content) with categorization (identifiers))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 33**, Sequeira discloses wherein said determining comprising looking up the identifier at the source. (see Sequeira col. 9, lines 16-22: partition (portion) identifier table) Sequeira does not specifically disclose wherein if identifier is not found, content portion is sent to destination. However, Liu discloses the method according to claim 32, wherein if the identifier is not found at the source, the method further comprising sending the portion to the destination. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

Art Unit: 2143

**Regarding Claim 34**, Sequeira discloses wherein storing the identifier and the associated portion of the content at the destination. (see Sequeira col. 6, lines 40-45: identifier and content transmitted to destination) Sequeira does not specifically disclose a look-up table at destination. However, Liu discloses the method according to claim 33, wherein further comprising a look-up table at the destination. (see Liu col. 54, lines 15-23: look-up table for content management utilizing cache techniques)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 35**, Sequeira discloses the method according to claim 33, further comprising storing the identifier in a table at the source. (see Sequeira col. 9, lines 16-22: identifier stored in table)

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 2143

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K H S  
Kyung H Shin

Application/Control Number: 10/015,015

Page 28

Art Unit: 2143

Patent Examiner  
Art Unit 2143

\*\*\*

KHS  
July 7, 2006

A handwritten signature in black ink, appearing to read 'Jeffrey PWU', with a stylized, cursive script.

JEFFREY PWU  
PATENTARY EXAMINER